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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,966	07/28/2003	Patricia A. Wang	200209420-1	6184
22879 7590 05/17/2007 HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			EXAMINER SHOSHO, CALLIE E	
			ART UNIT 1714	PAPER NUMBER
			MAIL DATE 05/17/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/628,966

**Applicant(s)**

WANG ET AL.

**Examiner**

Callie E. Shosho

**Art Unit**

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-19,22-25,27-42 and 45-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-19,22-25,27-42 and 45-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. All outstanding rejections except for those described below are overcome by applicants' amendment filed 2/12/07.

The new grounds of rejection set forth below are necessitated by applicants' amendment and thus, the following action is final.

**Claim Rejections - 35 USC § 112**

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 8 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The rejection is adequately set forth in paragraph 4(d) of the office action mailed 11/15/06 and is incorporated here by reference.

In response to the examiner's position that the scope of each of claims 8 and 31 is confusing given that each recites general formula (I) that uses "X" and "Y" with no disclosure of what X and Y represent, applicants argue that X and Y are defined in the present specification.

However, pointing to the portion of the specification, i.e. paragraphs 19-21, that discloses X and Y does not satisfy the requirement under 35 USC 112, second paragraph that the claims point out and distinctly claim the subject matter which applicant regards as his invention. Applicant cannot define or modify the scope of the claims using a disclosure in the specification.

A set forth in MPEP 2173.03, inconsistency with the specification disclosure may make an otherwise definite claim take on an unreasonable degree of uncertainty. It is believed that there is a unreasonable degree of uncertainty and thus confusion with respect to the scope of each of claims 8 and 31 given that it is not clear what X and Y encompass.

**Claim Rejections - 35 USC § 103**

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1-2, 4-8, 13-18, 24-25, 27-31, 36-41, and 47 rejected under 35 U.S.C. 103(a) as being unpatentable over Koitabashi et al. (U.S. 2002/004317).

The rejection is adequately set forth in paragraph 7 of the office action mailed 11/15/06 and is incorporated here by reference.

It is noted that while claim 1 has been amended to recite "consisting essentially of" transitional language with respect to the ink set, claim 24 has been amended to recite "consisting essentially of" transitional language with respect to the ink and newly added claim 47 also recites "consisting essentially of" transitional language with respect to the ink, it is noted that while it is recognized that the phrase "consisting essentially of" narrows the scope of the claims to the specified materials and those which do not materially affect the basic and novel characteristics of the claimed invention, absent a clear indication of what the basic and novel characteristics are, "consisting essentially of" is construed as equivalent to "comprising". Further, the burden is on the applicant to show that the additional ingredients in the prior art, i.e. additional ink and

dispersible pigment, would in fact be excluded from the claims and that such ingredients would materially change the characteristics of the applicant's invention, See MPEP 2111.03.

6. Claims 11-12 and 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koitabashi et al. as applied to claims 1-2, 4-8, 13-18, 24-25, 27-31, 36-41, and 47 above, and further in view of Momose et al. (U.S. 6,695,900).

The rejection is adequately set forth in paragraph 8 of the office action mailed 11/15/06 and is incorporated here by reference.

7. Claims 19, 22-23, 42, and 45-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koitabashi et al. as applied to claims 1-2, 4-8, 13-18, 24-25, 27-31, 36-41, and 47 above, and further in view of Parazak (U.S. 6,281,267).

The rejection is adequately set forth in paragraph 9 of the office action mailed 11/15/06 and is incorporated here by reference.

8. Claims 1-2, 4-19, 22-25, 27-42, and 45-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parazak (U.S. 6,281,267) in view of Zhu (U.S. 5,889,083).

The rejection is adequately set forth in paragraph 10 of the office action mailed 11/15/06 and is incorporated here by reference.

It is noted that while claim 24 has been amended to recite "consisting essentially of" transitional language with respect to the ink and newly added claim 47 also recites "consisting essentially of" transitional language with respect to the ink, it is noted that while it is recognized

that the phrase “consisting essentially of” narrows the scope of the claims to the specified materials and those which do not materially affect the basic and novel characteristics of the claimed invention, absent a clear indication of what the basic and novel characteristics are, “consisting essentially of” is construed as equivalent to “comprising”. Further, the burden is on the applicant to show that the additional ingredients in the prior art, i.e. acrylate resin, would in fact be excluded from the claims and that such ingredients would materially change the characteristics of the applicant’s invention, See MPEP 2111.03.

**Response to Arguments regarding 35 USC 103 rejections**

9. Applicants’ arguments filed 2/12/07 have been fully considered but they are not persuasive.

Specifically, applicants argue that Koitabashi et al. is not a relevant reference against the present claims given that the ink set includes ink in addition to those presently claimed and given that the black ink of the ink set includes not only self-dispersing pigment but also a dispersible black pigment.

It is agreed that the black ink of Koitabashi et al. comprises a dispersible black pigment in addition to the presently claimed self-dispersing pigment. However, with respect to claim 1, in light of the open language of the claim with respect to the ink, i.e. “including”, it is clear that the use of such dispersible pigment is not excluded from the scope of present claim 1. With respect to each of claim 24 and claim 47 which each recite “consisting essentially of” language with respect to the ink, it is noted that while it is recognized that the phrase “consisting essentially of” narrows the scope of the claims to the specified materials and those which do not materially

affect the basic and novel characteristics of the claimed invention, absent a clear indication of what the basic and novel characteristics are, “consisting essentially of” is construed as equivalent to “comprising”. Further, the burden is on the applicant to show that the additional ingredients in the prior art, i.e. dispersible pigment, would in fact be excluded from the claims and that such ingredients would materially change the characteristics of the applicant’s invention, See MPEP 2111.03.

Further, it is agreed that the ink set of Koitabashi et al. requires three inks, i.e. first ink comprising anionic dye, second ink comprising anionic dye and multivalent salt, and third ink comprising self-dispersing pigment, salt of styrene-maleic anhydride, and surfactant..

However, with respect to present claim 1 that recites “consisting essentially of” claim language with respect to the ink set, it is noted that while it is recognized that the phrase “consisting essentially of” narrows the scope of the claims to the specified materials and those which do not materially affect the basic and novel characteristics of the claimed invention, absent a clear indication of what the basic and novel characteristics are, “consisting essentially of” is construed as equivalent to “comprising”. Further, the burden is on the applicant to show that the additional ingredients in the prior art, i.e. additional ink, would in fact be excluded from the claims and that such ingredients would materially change the characteristics of the applicant’s invention. See MPEP 2111.03. With respect to claims 24 and 47, in light of the open language of the claims with respect to the method (claim 24) and the ink set (claim 47), i.e. “comprising”, ~~and~~ it is clear that the use of such ink is not excluded from the scope of present claims 24 and 47.

Applicants also argue that Parazak requires the use of acrylate resin that is outside the scope of the present claims that recite “consisting essentially of” transitional language with respect to the polymer (claim 1) or with respect to the ink (claims 24 and 47).

With respect to the “consisting essentially of” claim language recited with respect to the polymer in present claim 1, although Parazak requires the use of acrylate polymer, in light of the open claim language with respect to the ink, i.e. “comprising”, it is clear that the ink is open to the inclusion of additional ingredients including acrylate polymer as disclosed by Parazak.

Further, with respect to each of claims 1, 24, and 47, it is noted that while it is recognized that the phrase “consisting essentially of” narrows the scope of the claims to the specified materials and those which do not materially affect the basic and novel characteristics of the claimed invention, absent a clear indication of what the basic and novel characteristics are, “consisting essentially of” is construed as equivalent to “comprising”. Further, the burden is on the applicant to show that the additional ingredients in the prior art, i.e. acrylate resin, would in fact be excluded from the claims and that such ingredients would materially change the characteristics of the applicant’s invention, See MPEP 2111.03.

In response to the above, applicants point to paragraphs 10-11 of the present specification that discloses that adding acrylic type polymeric dispersants to pigment based black inks in many cases leads to nozzle clogging and other reliability issues.

However, while the above disclosure states that “in many cases” the use of acrylate dispersant leads to nozzle clogging and reliability issues, there is no evidence that such problems occur in all cases. That is, there is no evidence that such nozzle clogging and reliability issues would occur in the ink of Parazak et al. This is especially significant given that the acrylate



polymer of Parazak et al. is not used as a dispersant (see col.3, lines 4-7 of Parazak et al.). Given that the acrylate polymer of Parazak et al. is not of the type disclosed in paragraphs 10-11 of the present specification, i.e. dispersant, it is not clear that such polymer would cause nozzle clogging and reliability issues.

Applicants further argue that Zhu is not a relevant reference against the present claims given that Zhu requires the use of wax, which is outside the scope of the present claims.

However, while Zhu et al. do require the use of wax, it is noted that Zhu is only used as teaching reference in order to teach the use of hydrolyzed styrene-maleic anhydride copolymer in ink jet inks. It is noted that the “test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference...Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art”, *In re Keller*, 642 F.2d 413, 208 USPQ 871, 881 (CCPA 1981) and that “combining the teachings of references does not involve an ability to combine their specific structures”, *In re Nievelt*, 482 F.2d 965, 179 USP 224, 226 (CCPA).

### **Conclusion**

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1714

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Callie E. Shosho  
Primary Examiner  
Art Unit 1714

CS  
5/11/07